

Antifungal Activity of the Essential Oils from Some Species of the Genus *Pinus*

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The chemical composition of the essential oils from the needles of *Pinus ponderosa* (north american pine), *P. resinosa* (red pine) and *P. strobus* (eastern white pine) has been determined by GC/MS (FID). The essential oils from *P. resinosa* and *P. ponderosa* in comparison to *P. strobus* have been characterized by the higher content of β -pinene (42.4%, 45.7% and 7.9% respectively). On the other hand, α -pinene (17.7%) and germacrene D (12.2%) were dominant compounds of *P. strobus*. Moreover the essential oil from *P. resinosa* was more rich in myrcene-15.9%. Estragole and Δ -3-carene, each one in amount *ca* 8% were identified only in *P. ponderosa*. The content of essential oils in the needles slightly varied – 0.65% – *P. resinosa*, 0.4% – *P. strobus*, 0.3% – *P. ponderosa*. The antifungal activity has been investigated towards *Fusarium culmorum*, *F. solani* and *F. poae*. The strongest activity was observed for the essential oil from *P. ponderosa*, which fully inhibited the growth of fungi at the following concentrations – *F. culmorum*, *F. solani* at 2% and *F. poae* at 5%.